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THE AVIFAUNA OF MOUNT KATANGLAD

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AND

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In April-May and again in the last week of December 1960, the Peabody Museum of Yale and Silliman University jointly sponsored a small trip by Professor Rabor's assistant, Mr. R. B. Gonzales, and a group of Silliman University students to Mount Katanglad, Bukidnon Province, central Mindanao Island. This area had been visited once before by ornithologists of the Danish Philippine Expedition (Salomonsen, 1953). Mount Katanglad is most interesting as it reaches an altitude of over 7,800 feet above sea level and lies in a range of hills in central Mindanao, somewhat isolated from the high massif of Malindang and Dapiak to the west in the eastern edge of the Zamboanga Peninsula. Likewise, it is separated from the Mount Apo hills of the southeast by the drainage valley of the Mindanao River and from the Diuatan Mountains of the northeast by the similar but narrower valley of the Kalgasan River.

Of the endemic subspecies of montane birds of Mindanao found on Mount Katanglad, four prove to belong to more western Malindang forms and six to southeastern Mount Apo or Mount McKinley forms. Twelve others are shared in common with both areas of mountains, while five forms are found to be endemic to this central mountain massif alone.

The discovery of two new species, a finch and a fire-tail finch, illustrated herein by Robert Verity Clem, is particularly noteworthy.

Accipiter trivirgatus extimus Mayr

A pair of crested goshawks from Mount Katanglad have prompted us to re-examine the Mindanao population. We have, therefore, borrowed material kindly loaned by Dr. A. L. Rand of the Chicago Natural History Museum and Mr. R. M. de Schauensee of the Philadelphia Academy of Natural Sciences. Mayr (1949) reviewed the races of this species and pointed out the differences between the male and female plumages in the adult.

Adult females of *extimus* are very dark tawny rufous on the breast with a variable amount of rufous sometimes forming an almost solid rufous breast-shield as in the male. The flanks are variably barred more lightly or more heavily. When heavily barred they are very close to *trivirgatus* and in fact would be very difficult to separate except for size, being much smaller. When the underparts are lightly barred, the appearance is close to the continental forms except again for size. The Palawan race *palawanus* Mayr is far more distinct from its neighbors, the female's pattern of droplets of blackish rufous on the breast being close only to *layardi* of Ceylon.

Males of *extimus* are far more distinct *interalia* than females, their pale light-rufous underparts setting them apart from *palawanus* or *trivirgatus* with minor variation. The single male from Katanglad is astonishingly dark, approaching *javanicus*. Two Negros males are very light in color with somewhat reduced barring, although they can be matched by a Davao male. A Negros immature tends to be very darkly spotted on the underparts. Altogether, this population shows considerable variation in color which, were it not for its small size, would make it difficult to identify with certainty.

Writing of Ceylon and South India birds, Mayr (*tom. cit.*: 8) questions Whistler's diagnosis of the difference between females from the two areas. Comparing a female of *layardi*

from Ceylon with one of *peninsulae* from Kerala, the differences cited by Whistler are shown to be correct. The Ceylon female has smaller and darker markings on the lowerparts, exactly as pointed out by Whistler.

Trichoglossus johnstoniae johnstoniae Hartert

A large series from Mount Katanglad belongs to the Mount Apo form rather than *pistra* Rand and Rabor from Mount Malindang.

Prioniturus montanus waterstradti Rothschild

Six specimens from Mount Katanglad seem as bright about the head as *waterstradti* from Mount McKinley and Apo and also similar to birds from Mount Malindang which have been kept separate as *malindangensis* Mearns by Rand and Rabor (1960). We feel that these Katanglad birds span the slight differences enumerated by Rand and Rabor and that Salomonsen was right in combining the Mindanao populations.

Collocalia esculenta bagobo Hachisuka

A male was taken May 1 above 4,200 feet.

Cuculus saturatus horsfieldi Moore

A female from Katanglad enlarges our collection of this migrant cuckoo from the Philippines to include Luzon, Mindoro, Samar, and Mindanao. Found from sea level to 5,000 feet; all specimens taken in April and early May. Weight: ♂ ♂ 92.5, 106.5 g, ♀ ♀ 80, 80 g.

Otus bakkamoena everetti (Tweeddale)

A pair taken on Mount Katanglad at 4,200 feet are in the rufous phase of this small owl as listed by Delacour and Mayr (1946), agreeing well in size and color with two additional specimens from Davao in the Hachisuka collection. A male from Bohol, *boholensis auctorum*, agrees in size with the Mindanao birds but is in the gray phase. The race *nigrorum*

Rand (1950) is a striking one. An adult male in the Yale collection from Cuernos de Negros has a wing measurement of 148 mm; tail, 75; culmen, 20.

Mimizuku gurneyi (Tweeddale)

A female taken on Mount Katanglad at 4,300 feet represents perhaps the sixth known specimen of this rare species. It measures: wing, 274; tail, 139; culmen (from cere), 26. The description of this genus in Hachisuka (1934) emphasizes the cere which is indeed tumid and in which the external nares are large and prominent. The bill is heavy, the maxillary tomia are buttressed with a cutting tooth-like point before the downward sweep begins towards the tip, a feature totally unlike the smooth bills of *Otus* species. The upper surface has a softly mottled appearance, not heavily vermiculate as in *Otus*, the scapulars ornamented with patches of whitish buff, tipped black, the patches on both inner and outer webs. The back is heavily streaked with black as in the head, the nuchal collar is very broad, the feathers only tipped with black, and the primaries and secondaries have a much reduced, barred pattern.

Until more is known of the habits and behavior of this rare owl, we would hope that its distinct appearance and huge size would entitle it to remain as a monotypic genus.

Batrachostomus septimus septimus Tweeddale

A juvenal sexed as a female was collected May 6. Presumably just out of the nest, this bird has well-formed wings and tail feathers capable of flight, but the feathers about the head and face are still downy. Overall, the plumage can be characterized as juvenal. Some downs, barb downs, carried on the ends of barbs of the juvenal feather tips, may be seen, especially on the throat and undersurface. On the back this bird is indistinctly barred with wavy bars of blackish brown. Some feathers are much darker than others, perhaps indicating a replacement stage. On the undersurface the throat and breast are barred, the belly whitish, the lower tail coverts pale buff.



above *Serinus mindanensis*

below *Erythrura coloria*

Lanius validirostris hachisuka Ripley

Two females of this species have wing measurements of 86.5, 90; culmen (from skull), 20, 20. In size, therefore, they agree with both *hachisuka* Ripley from Mount Apo and *quartus* Rand and Rabor from Mount Malindang. The type and one other specimen of *hachisuka* measure: wing, 87.5, 87.5; culmen (from skull), 20, 19.5. (In the original description [1949] I measured the culmen from the beginning of the feathers of the forehead.) The type and unique *quartus* (1958) measure: wing, 93.5; culmen, 22.

Rand and Rabor separated *quartus* on size and color. The breast and abdomen are whiter, the under tail coverts white, and the flanks richer and deeper rufous. The Katanglad specimens are mixed in color. One resembles *hachisuka* in having a rich rufous wash on the underparts. The other has this confined to the flanks. Dr. Rand has kindly examined these and states (*in litt.*): "One specimen [pale-breasted with rufous flanks] is very similar to the type of *quartus*, differing only in the 2 mm shorter wing, the slightly more pale gray in the forehead (in *quartus* the forehead is almost like the back), and the faint rufous wash on the breast."

These wholly unexpected specimens representing 40% of the known specimens of Strong-billed Shrikes from Mindanao, occurring as they do on an isolated mountain in central Mindanao separating eastern Mount Apo from western Mount Malindang, are surprising in bridging exactly the essential color differences which allowed *quartus* to be described from the west and *hachisuka* from the east. It appears likely that additional Mindanao material would show that these shrikes are oversplit.

Coracina uegregori Mearns

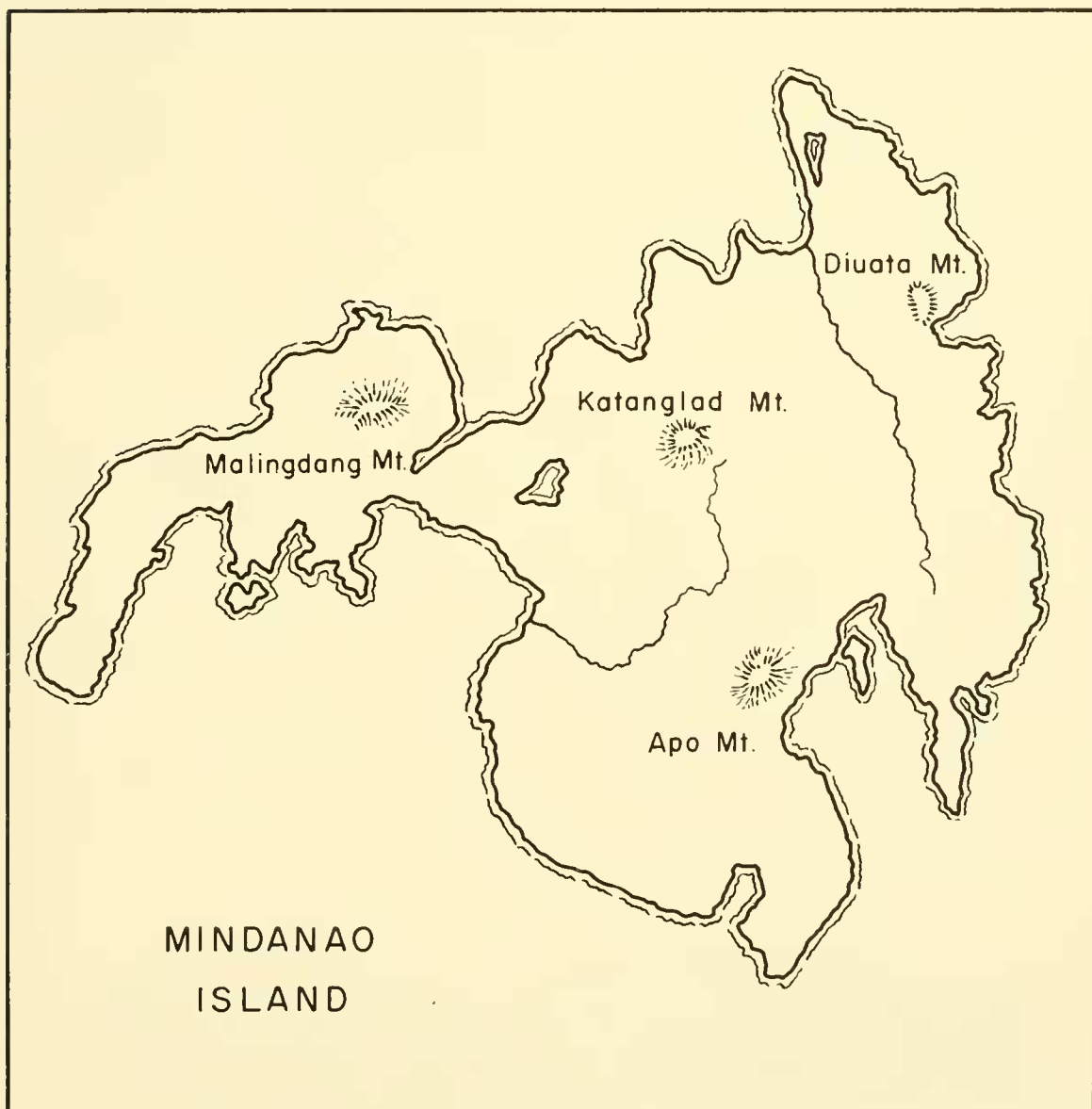
We have examined 39 specimens from Mount Katanglad and 15 from Mount Malindang, and we find individual differences in the shade of the color of the flanks are great enough in each population to prevent assigning them to a geographical local-

ity. There is no appreciable difference in the color of the breast. In size we note the following:

Mount Katanglad wing adult ♂ ♂ 103-108 (104.6),
♀ ♀ 99-104 (100.8).

Mount Malindang wing adult ♂ ♂ 104-109 (107.2),
♀ ♀ 101, 103.

These wing measurements imply an overlap of all but 1 millimeter which seems far too small to be significant. Re-examination of Salomonsen's description and comparison of these specimens forces us to the conclusion that *peterseni* Salomonsen (1953) should be regarded as a synonym of *mcgregori*.



***Pericrocotus flammeus gonzalesi* subsp.n.**

TYPE: ♂ ad. (Y.P.M. No. 58896), collected May 10, 1960, by R. B. Gonzales on Mount Katanglad, Malaybalay, Bukidnon Province, Mindanao Island, Philippines.

DIAGNOSIS: From *johustoniac* of Mount Apo, this form differs in the male by being more richly orange-yellow on undersurface, wing edgings, and tail. Two females appear to bear this color difference out, although in one specimen the difference is only readily observable in the color of the tail. Compared to *novus* of Luzon, males are paler, far less vermilion, especially on the rump and tail. Similarly, *gonzalesi* is far less vermilion than is *leytensis*. In general then, *gonzalesi* is a very well-marked intermediate, especially in the males, representing a discontinuous cline in a stage from the lemon-yellow or egg-yellow populations, *johustoniac* and *marchesae* of Sulu, and the rich vermilion orange of *novus* and *leytensis*.

MEASUREMENTS: Wing, ♂ ♂ 78, 83, ♀ ♀ 78, 80; tail, ♂ ♂ 76, 83, ♀ 80.

RANGE: Mount Katanglad, central Mindanao from 4,000 to 5,000 feet.

Turdus poliocephalus katanglad Salomonsen

Salomonsen's description (1953) brings out very well the striking characters of this well-marked subspecies.

Zoothera andromedae Temminck

Another record for Mindanao, taken in May and December.

Ptilocicichla mindanensis mindanensis (Blasius)

A single female of this little-known form was taken December 26, between 4,500 and 5,200 feet.

Macronus striaticeps mearnsi Deignan

A small series of this species confirms the dark-rufous tone of the montane forms of *striaticeps* from Mindanao. It appears as if the Katanglad birds are even darker than those from Mount Apo and Mount Malindang.

Bradypterus caudatus unicolor (Hartert)

Two females were taken on Mount Katanglad April 24 and May 9. They measure: wing, 57, 61; tail, 67, 77; culmen, 15, 14.5. These two specimens are the first of this rare species received at Yale. The bird with smaller measurements is presumably subadult. In any case, the throat is buffy with reduced white patch, no blackish spotting, and the gray of the breast is patchy. It compares favorably with the type of *unicolor* which is also in immature plumage according to Dr. Amadon (*in litt.*) who has kindly compared our specimens in New York. The adult bird appears indistinguishable from *malindangensis* (Mearns) according to the plate in Hachisuka (1935). Under the circumstances, it seems wiser to combine the Mindanao populations under the oldest name *unicolor* for that island pending securing additional material from the Philippines.

Megalurus palustris forbesi Bangs

Taken at 4,000 feet.

Phylloscopus trivirgatus flavostriatus Salomonsen

A series of this form exhibits the distinctive character cited by Salomonsen, darker, more olive crown, more buffy superciliary and pale, washed-out looking underparts. Collected from 5,800 to 7,400 feet above sea level.

Phylloscopus olivaceus olivaceus Moseley

Apparently common from 4,200 to 5,500 feet.

Phylloscopus borealis borealis (Blasius)

Found from 4,200 to 5,200 feet.

Orthotomus cucullatus heterolaemus (Mearns)

Apparently common in the forest from 4,200 to 6,200 feet.

Rhinomyias gularis goodfellowi Ogilvie-Grant

Two males and a female of this little-known form were taken on Mount Katanglad in April at 6,200 feet. The males with wing measurements of 95, 96 are larger than the female (wing

93.5), but otherwise indistinguishable, being perhaps only a trace darker, more slaty on the back.

Muscicapa hyperythra montigena (Mearns)

Three males and five females belong to the rufous-tailed Mount Apo form of this thicket flycatcher. There appears to be no difference in size or color between these birds and the latter race.

Muscicapa panayensis nigriloris (Hartert)

Apparently common above 4,200 feet on Mount Katanglad.

Muscicapa mugimaki Temminck

A female from Mount Katanglad taken December 22 represents our second specimen of this migrant flycatcher from the Philippines, the first being a male from Cuernos de Negros, Negros I., taken December 25, 1952, by Rabor.

Rhipidura nigrocinnamomea hutchinsoni Mearns

This is a somewhat intermediate population, as might be expected, between *hutchinsoni* of northwest Mindanao, Mount Bliss, and Mount Malindang, and southeast Mindanao, *nigrocinnamomea* from Mount Apo. In a series of 22 specimens, all have a more or less broad band of white across the forehead, although the makeup of the skins is often poor in this region. However, 2 of the 22 show traces of white on the upper breast. One of these has the white area as well-developed as typical *nigrocinnamomea*. The other is paler only on the upper breast.

Sitta frontalis apo Hachisuka

A series of 25 specimens from Katanglad is nearer the southeastern Mindanao *apo*, of which the type is in the Ripley collection at Yale. One Katanglad bird, a male, is as dark below and washed with lilac as Rand and Rabor's *zamboanga* (1957). Three specimens of the latter from Mount Malindang show a considerable range of color from very dark washed with lilac below to closely similar to our Katanglad and Mount Apo birds. Evidently, this is a somewhat variable population.

Rhabdornis inornatus zamboanga Rand and Rabor

The smaller creeper from Mount Katanglad appears to match closely *zamboanga* from Mount Malindang, although here we lack the race *alaris* from Mount McKinley.

Dicaeum anthonyi kampalili Manuel and Gilliard

As Salomonsen has pointed out (1960), the Katanglad population agrees with southeastern Mindanao *kampalili*. Our 4 specimens are smaller than those measured by Salomonsen and are, therefore, closer in size to the race named by Manuel and Gilliard. Measurements: wing, ♂ 55, 57.5; ♀ 56, 57. At present there appear to be 10 known specimens of this species. We are grateful to Dr. Gilliard for comparing our male with the American Museum specimen of *kampalili*.

Dicaeum ignipectus apo Hartert

Five males and two females of this rare form were collected at the 4,200 foot level.

Nectarinia jugularis jugularis (Linnaeus)

A pair were collected at 4,200 feet, and agree well with lowland specimens.

Aethopyga primigena primigena (Hachisuka)

A series of 33 specimens from Mount Katanglad agrees perfectly with the type and another male in the Ripley collection at Yale from Mount Apo. These birds were found up to 6,000 feet. An immature specimen taken April 3 has a paler throat with more pronounced yellow on the longitudinal central streak and more noticeable yellow breast spot. The yellow color on the flanks and underparts is paler, also more citrine than in adult examples.

Aethopyga boltoni malindangensis Rand and Rabor

These birds are closer to the west Mindanao race than to that of Mount Apo. They are somewhat darker below, the feathers of the breasts of males and females having pronounced greenish-olive centers, but above they are indistinguishable, sharing with *malindangensis* the tendency to iridescence on

the head which is nearly absent in typical *boltoni*. It seems best, then, to keep this population combined with that of Malindang.

Arachnothera clarae malindangensis Rand and Rabor

This newly described form (1957) proves to be represented on Mount Katanglad from whence Gonzales has sent one male taken March 20 at 4,200 feet in breeding condition, and a further 5 specimens in December.

Zosterops montana montana Bonaparte

Apparently very common from 4,000 to 6,200 feet. We cannot distinguish the slight differences between these birds and those of Mount Apo cited by Salomonsen (1953).

Apoia goodfellowi goodfellowi (Hartert)

This mountain whiteye belongs to the Mount Apò subspecies and was found from 4,200 to 7,400 feet.

Hypocryptadius cinnamomeus Hartert

A series of 34 specimens from Mount Katanglad proves to be intermediate when compared with 7 specimens from Mount Apo (topotypical *cinnamomeus*) and 17 specimens from Mount Malindang (*malindangensis* Rand and Rabor). The latter form was described (1957) as being "like *cinnamomeus* of Mount Apo but upperparts brighter cinnamon rufous; breast tinged with brighter cinnamon; abdomen and under tail coverts whiter (less grayish)." One individual from Mount Apo is as bright and whitish below as any specimen from Mount Malindang. Katanglad birds are in general rather somberly colored below, more grayish throughout, but on the upperparts they are indistinguishable from those of Mount Malindang. These differences may be described below:

	Upperparts	Lowerparts
Apo	darker?	darker (86%)
Katanglad	lighter	darker
Malindang	lighter	lighter

If, then, these characters are to be taken at face value, the Katanglad birds should be combined with the Malindang population on the basis of the color of the upperparts, and with the Apo population on the basis of the lowerparts. There is no difference in size.

As the differences at best seem relatively slight, perhaps indicative only, faced with this solomonian choice it seems wisest to us to include all the Mindanao birds under a single name and revert to a monotypic species.

Birds were collected from 4,200 to 6,200 feet.

***Serinus mindanensis*, sp.n.**

TYPE: ♂ ad. (Y.P.M. No. 58898), collected April 19, 1960, by R. B. Gonzales at Malaybalay, Mount Katanglad, Bukidnon Province, Mindanao Island, Philippines.

DIAGNOSIS: Upperparts blackish-brown, the margins of the feathers indistinctly and widely edged with greenish olive; forecrown extending very nearly to the base of the bill, golden yellow, reaching below to the cheeks, throat, and breast; no white ring around the eye; greater median and lesser wing coverts, rump and upper tail coverts broadly edged with golden yellow; underparts including under tail coverts dull white, the flank feathers narrowly streaked with a central streak of blackish brown; primaries and rectrices black, a faint trace of a yellowish edging on the outer margin of the median portion of the sixth and seventh primary. Bill apparently olive horn-colored, feet dark-brown.

The bill of this species is remarkably stout and arched, far more so in proportion than in *estherae*. The maxillary tomia are angled and thickened to produce a dentate bulge midway from the angle to the tip. This gives a pronounced cutting mechanism to the mid-point of the commissural line.

MEASUREMENTS: Wing, 70; tail, 49; culmen, 9 mm.

RANGE: Known only from Mount Katanglad, central Mindanao, southern Philippines.

REMARKS: *Serinus mindanensis*, while obviously close to *estherae*, is best kept in a superspecies. The species *estherae* divides into 3 subspecies as follows:

(a) *vanderbilti* (de Schaunensee), of which *ripleyi* (Chasen) is a synonym, Mount Löser area, Atjeh, north Sumatra, 7,000 feet above sea level:

(b) *estherae* (Finsch), west Java on Mount Pangrango and Poentjakpas near Bogor 4,300 to 6,000 feet and perhaps Mount Telemojo south of Semarang in central Java; and

(c) *orientalis* (Chasen, 1940) east Java on Mount Ajekajek, Tengger mountains over 7,000 feet.

All these races are very similar to each other, differing only in size, tone of color, and size of the white ring around the eye. These populations are roughly equivalent to each other; the sub-specific category is unequivocal. In contrast, *mindanensis* is distinctly different in pattern and color, not equivalent, and to merge it with the races of *estherae* would be decidedly ambiguous.

This specimen has prompted us to look again at the relationships of these isolated montane relict forms. The most recent note on the taxonomy of *estherae* is that of Delacour (1946) who remarked simply: "The species *estherae* is certainly not referable to the genus *Serinus*, but to *Carduelis*, its nearest relative being C. (= *Hypacanthis*) *monguilloti* from the mountains of southern Annam." *Hypacanthis* (type, *spinoïdes*) had been combined earlier with *Carduelis* by Mayr, among others, who remarked (1941): "As far as the genera *Hypacanthis* and *Spinus* are concerned, nobody has yet brought forward any valid reason why they should not be united with *Carduelis*, as Hartert proposed more than thirty years ago."

Hartert (1910) indeed proposed that the Goldfinch be united with the Siskins, Linnet, Twite, and American Goldfinches on the basis of bill shape, color pattern, similarity of wing and tail, and stout feet. This suggestion was followed in the British Handbook (1938 *et seq.*) in which the genus *Carduelis* includes, besides the Goldfinch, the Siskin, the Twite, the Linnet, and the Redpoll. These latter birds, in which the wing pattern differs, browns and pinkish reds predominate in

the plumage, and in which the pale-edged forked tail appears longer in proportion to the wing, have been kept separate in *Acanthis* more recently by Vaurie (1959). All of these species have a distinctive bill, almost conical in shape with a tendency to a thickened, swollen base. In contrast *Serinus*, the Serin, the Citril, and the Gold-Fronted Finch, *S. pusillus*, all have short, stubby, thick bills, with the culmen distinctly curved, not straight.

After looking over these species of the Palearctic, it seems impossible to align the species from Java, Sumatra, and Mindanao with *Carduelis monguilloti* or its relatives, *ambigua* and *spinoïdes*. Some of the differences may be expressed below:

	Longest Primary	Wing Patch	Tail Patch	Top of Head	Bill
<i>Carduelis</i> superspecies	first; not always	present on primaries	present	dark, only yellow superciliary	sharp, conical
<i>estherae</i> , <i>mindanensis</i>	second and third	absent	absent	yellow	swollen, bullfinch-like

Once a careful examination of the specimens is made, the island birds with bills as tumid and curved as in the genus *Carpodacus* or *Pyrrhula*, with an entirely different wing pattern, with areas of yellow round the head and breast in a very different arrangement, with the yellow edgings of the rump feathers carried right out throughout the upper tail coverts, it can be seen that they are strikingly different. These species are as different from *Carduelis* in their own right as is *Rhynchostruthus* of the Somali arid zone of northeastern Africa and southwest Arabia.

If these birds do not fit in *Carduelis*, could they then fit in some other Cardueline genus? The first description of *estherae* (Finsch, 1902) placed it in *Crithagra*. The type of this genus is *sulphuratus* of South Africa, and the genus is now considered synonymous with *Serinus*. In the arrangement of the primaries, second and third longest, they fit in better with *Serinus* than with *Carduelis*. *Serinus*, found in the Palearctic and in Africa, is characterized as having a very short, thick, tumid bill, culmen distinctly curved, tail deeply emarginated. The

wing is long, longer than the tail, the wing/tail index varying from 75-82%.

	<i>Serinus</i>	<i>estherae</i> , <i>mindanensis</i>
Bill	small, tumid	more rounded, more tumid, larger in proportion
Facial Pattern	tendency to superciliary; crown patch in two species	no eye stripe; crown patch
Back	streaked	plain
Tail	forked, wing/tail index 75-82%	barely forked 67-70%
Rump	yellow, usually not on upper tail coverts	yellow extending through upper tail coverts
Wing Covert Edgings ..	normally match color of the back	distinct from back
Outer Web of Primaries	edged with yellow	almost totally reduced or absent

The primary arrangement of *Serinus*, with the exception of *flaviventris* in which the first primary is longest, inclines us to feel that the tropical island species are nearer to *Serinus* than to *Carduelis contra* Delacour. The bill shape is far more similar, especially to some of the African members of the *Serinus* throng. All these are less strongly hooked or rounded, or indeed as swollen in the mid-section of the tomium of the maxilla. In some ways these tropical island species strongly resemble *Carpodacus*. The bill, although more bullfinch-like, resembles that of the common Asian species *erythrinus*. The plumage patterns, if yellows are substituted for reds, are not too dissimilar.

In the same way *Rhynchostruthus* bears a certain resemblance to *Rhodopechys*. *Callacanthis burtoni* of the Himalayas bears an even closer resemblance to *Carduelis carduelis*, and in this case it is possible to hazard a guess that *burtoni* may be a Palearctic relict which was evolved from an ancestral goldfinch. No such guess seems readily apparent or in order for *Rhynchostruthus* on the other hand.

Our opinion, then, is that these birds belong with the expanded genus *Serinus* and that the Philippine bird, though sympatric, differs as significantly from the three known closely allied races of *estherae* as do the three sympatric forms of *Carduelis*, *spinoïdes*, *ambigua*, and *monguilloti*, kept by modern workers, Mayr (*tom. cit. supra*) and Vaurie (1949), as separate species in a superspecies.

***Pyrrhula leucogenys coriaria*, subsp.n.**

TYPE: ♂ ad. (Y.P.M. No. 58899), collected April 11, 1960, by R. B. Gonzales at Malaybalay, Mount Katanglad, Bukidnon Province, Mindanao Island, Philippines.

DIAGNOSIS: From *apo* Hachisuka (1941), of which the type and one other specimen are in the Ripley collection, this form differs by being darker, more suffused with olive, "mummy brown" rather than "prouts brown" both above and below. From *steerei* Mearns this form differs by being much darker, the darker smoky brown being of the same grayish tones rather than in the more tawny tone of *apo*. All these three populations are smaller than *leucogenys* of Luzon and have all-black bills.

MEASUREMENTS: Wing, ♂ ♂ 74-79, ♀ ♀ 76, 78; tail, ♂ ♂ 64-66.5, ♀ ♀ 61.5, 64; exposed culmen, ♂ ♂ 10-11, ♀ ♀ 10, 11.5.

REMARKS: It is interesting that this race situated in a central position geographically should be much darker than the two populations it separates, that of Mount Malindang to the west and Mount Apo to the southeast. Taken together running from west to east or vice versa, these populations represent a sharply discontinuous geographical cline.

Lonchura malacca jagori (Martens)

As Parkes (1958) has pointed out, this variable black-headed population had best be left under the catch-all *jagori* rather than further split as Salomonsen (1953) has suggested.

Erythrura coloria, sp.n.

TYPE: ♂ ad. (Y.P.M. No. 58897), collected March 26, 1960, by R. B. Gonzales on Mount Katanglad, Malaybalay, Bukidnon Province, Mindanao Island, Philippines.

DIAGNOSIS: This species resembles *Erythrura trichroa* of the Moluccas and Melanesian areas, thus differing completely from *hyperythra* and *viridifacies*, the other known parrot finches of the Philippines. From *trichroa* it differs in its richer, more intense emerald-green coloration and in the presence of a bright scarlet patch lying behind the blue cheeks and extending from the postocular area down to the sides of the throat. The blue patch covers the forehead and forecrown, the cheeks, and an area immediately behind the eyes.

MEASUREMENTS: 4 ♂ wing, 51-56, ♀ 54.5; tail, 35-38, ♂ 33; culmen (from skull), 11-13, ♀ 11 mm.

RANGE: Known only from Mount Katanglad, Bukidnon Province, central Mindanao, Philippines.

REMARKS: This species was found in small clearings or openings in the forest from 4,200-4,500 feet, often perching on grass close to the ground. The birds were quiet and moved singly or in pairs; when disturbed, flying to the nearest dense growth, often near small streams, perching on branches close to the ground.

ADDITIONAL SPECIES TAKEN ON MOUNT KATANGLAD

Pernis philorhynchus philippensis Mayr

Butastur indicus (Gmelin)

Accipiter virgatus confusus Hartert

Hieraaëtus kieneri formosus Stresemann

Spilornis checla holospilus (Vigors)

Falco severus Horsfield

Gallus gallus Linnaeus

Ptilinopus leucotis brevirostris (Tweeddale)

Ptilinopus amethystina mindanensis (Manuel)

- Ptilinopus occipitalis* Gray
Ducula carola mindanensis (Ogilvie-Grant)
Columba vitiensis griseogularis Walden and Layard
Macropygia phasianella tenuirostris Bonaparte
Loriculus philippensis apicalis Souancé
Cuculus fugax pectoralis Cabanis and Heine
Cacomantis variolosus sepulcralis (Müller)
Surniculus lugubris velutinus Sharpe
Centropus viridis viridis (Scopoli)
Eurostopodus macrotis macrotis (Vigors)
Hemiprocne comata comata (Temminck)
Harpactes ardens ardens (Temminck)
Halcyon smyrnensis gularis (Kuhl)
Merops viridis americanus Müller
Eurystomus orientalis cyanicollis Vieillot
Penelopides panini affinis Tweeddale
Aceros leucocephalus leucocephalus (Vieillot)
Megalaima haemacephala haemacephala (Müller)
Dryocopus javensis multilunatus (McGregor)
Dendrocopos maculatus fulvifasciatus (Hargitt)
Chrysocolaptes lucidus lucidus (Scopoli)
Lanius cristatus lucionensis Linnaeus
Lanius schach nasutus Scopoli
Oriolus chinensis suluensis Sharpe
Oriolus xanthonotus samarensis Steere
Dicrurus hottentottus striatus Tweeddale
Artamus leucorhynchus leucorhynchus (Linnaeus)
Aplonis minor todayensis (Mearns)
Sarcops calvus melanonotus Ogilvie-Grant
Basilornis miranda (Hartert)
Corvus macrorhynchus philippinus Bonaparte
Coracina striata kochii (Kutter)
Pycnonotus goiavier suluensis Mearns
Hypsipetes philippinus saturator (Hartert)
Muscicapa griseisticta griseisticta (Swinhoe)
Muscicapa westermanni westermanni (Sharpe)
Muscicapa panayensis nigriloris (Hartert)
Culicicapa helianthea panayensis (Sharpe)

Monarcha azurea azurea (Boddaert)
Pachycephala philippensis apoensis (Mearns)
Orthotomus atrogularis frontalis Sharpe
Turdus obscurus Gmelin
Dicaeum hypoleucum hypoleucum Sharpe
Dicaeum nigrilore nigrilore Hartert
Dicaeum bicolor bicolor (Bourne and Worcester)
Dicaeum pygmaeum davao Mearns
Lonchura leucogastra manuli Parkes

LITERATURE CITED

- Chasen, F. N. 1940. Notes on some Javan Birds. *Treubia* 17: 263-4.
Delacour, J. 1946. Notes on the Taxonomy of the Birds of Malaysia. *Zoologica* 31: 4.
——— and Mayr, E. 1946. Birds of the Philippines. Macmillan, New York.
Finsch, O. 1902. Notes Leyden Museum 23: 151.
Hachisuka, M. 1934-1935. The Birds of the Philippine Islands (3, 4): 50, 402. Witherby, London.
——— 1941. Further Contributions to the Ornithology of the Philippine Islands. *Tori* 11 (51-52): 88.
Hartert, E. 1910. Die Vögel der paläarktischen Fauna 1: 65-6.
Mayr, E. (with Stanford, J. K.) 1941. The Vernay-Cutting Expedition to Northern Burma. *Ibis*: 361.
——— 1949. Geographical Variation in *Accipiter trivirgatus*, Amer. Mus. Novit. no. 1415: 1-12.
Parkes, K. C. 1958. Taxonomy and nomenclature of three species of *Lonchura* (Aves: Estrildinae). *Proc. U. S. Nat. Mus.* 108: 291.
Rand, A. L. 1950. A new race of owl, *Otus bakkanoena*, from Negros, Philippine Islands. *Nat. Hist. Misc.* 72: 1-5.
——— and Rabor, D. S. 1957. New Birds from the Philippines. *Fieldiana: Zool.* 42: 18.
——— 1958. The races of the Shrike, *Lanius validirostris*. *Fieldiana: Zool.* 39: 85.
——— 1960. Birds of the Philippine Islands: Siquijor, Mount Malindang, Bohol, and Samar. *Fieldiana: Zool.* 35: 260-308.
Ripley, S. Dillon. 1949. A new race of Shrike from the Philippines. *Bull. Brit. Orn. Cl.* 69: 121.
Salomonsen, F. 1953. Miscellaneous notes on Philippine Birds. *Vidensk. Medd. fra Dansk naturl. Foren.* 115: 272-281.
——— 1960. Notes on Flowerpeckers (Aves, Dicaeidae) 2. The Primitive Species of the Genus *Dicaeum*. Amer. Mus. Novit. no. 1991: 22-3.
Vaurie, C. 1949. Notes on some Asiatic Finches. Amer. Mus. Novit. no. 1424: 8.
——— 1959. The Birds of the Palearctic Fauna: 611. London.
Witherby, H. F., Jourdain, F. C. R., Ticehurst, N. F., and Tucker, B. W. 1938 *et. seq.* The Handbook of British Birds 1: 57.